Inmarsat SwiftBroadband
For U.S. Government Airborne Operations
Secure, reliable, worldwide operations

Designed for mobility, Inmarsat SwiftBroadband delivers trusted airborne satellite communication services that are highly reliable, secure and affordable, anytime and anywhere.
As the very face of global conflict and humanitarian response rapidly shifts, highly mobile airborne operations remain key to mission success. In addition, U.S. government deploys unmanned aerial vehicles (UAVs) and other manned aircraft to conduct Intelligence, Surveillance and Reconnaissance (ISR) in combat and in the field. This creates a surge of demand for secure, high-throughput communications to collect, process and disseminate intelligence information.

Thanks to Inmarsat, crews stay connected regardless of conditions. They take advantage of reliable, trusted communications which travels with them. They avoid risking mission failure simply because satellite-supported capabilities won’t ‘follow’ them from one end of the Earth to another.

That’s why SwiftBroadband is the most installed L-band solution available globally on the Inmarsat-4 satellite constellation throughout government aeronautical, business jets and commercial airlines. More than 40 commercial airlines use SwiftBroadband - in fact, nine out of ten wide-bodied, trans-oceanic commercial aircraft have installed Inmarsat safety services.

Specifically, airborne users benefit from the following key, distinct qualities of Inmarsat SwiftBroadband:

**Mobility**

With SwiftBroadband, users are assured of uninterrupted, global coverage (except for extreme poles) – no matter where in the world they are flying.

**Reliability**

Ultimately, it’s all about building absolute trust within the system: Thanks to Inmarsat network’s 99.9 percent reliability and the rigorous testing on the part of our manufacturing partners, crews benefit from uninterrupted performance – these crews obtain completely reliable ‘push button’ satellite service for any and all voice, data and video communications, enabling their mission success anywhere and anytime.

**Trust**

Inmarsat has established a long-time trusted relationship with the U.S. public sector, with more than 35 years of experience in delivering mission-critical mobile satellite communication services to users worldwide.
Superior performance

Inmarsat SwiftBroadband brings secure, reliable services to highly flexible government airborne operations worldwide. The service is delivered via the Inmarsat-4 global, end-to-end L-band network, with an operational lifespan expected into the 2020s, empowering government users with a stable platform that will support their mission-critical needs now and in the future.

SwiftBroadband is an IP-based packet-switched service that provides an ‘always-on’ data connection through single or multichannel systems including high-quality voice and a combination of always-on data and guaranteed connection rates. A single Inmarsat installation enables a wide range of uses in the cockpit and the cabin. These include safety communications and weather and flight plan updates, as well as crew connectivity for email, Internet access, video, VoIP telephones, GSM and SMS messaging.
Improving operational efficiency
Delivering secure, reliable worldwide connectivity

Global coverage
Designed for mobility, SwiftBroadband has you covered, wherever your mission takes you, with a network that is owned and managed 24/7/365 solely by Inmarsat, the U.S. government’s number one trusted provider of mobile satellite services. With SwiftBroadband, you are never out of touch. The service is accessible globally, except for the extreme polar regions.

This map depicts Inmarsat’s expectations of coverage following the commercial introduction of Inmarsat’s fourth L-band region, scheduled for the end of 2015. It does not represent a guarantee of service. The availability of service at the edge of coverage areas fluctuates depending on various conditions.
Unrivalled reliability
SwiftBroadband is designed specifically to deliver to government users the highest levels of network availability. SwiftBroadband services are made possible via Inmarsat’s fourth generation satellites, Inmarsat-4, which forms the most sophisticated commercial constellation in operation today, with redundancy engineered into both space and ground segments. Therefore, SwiftBroadband enables ultimate connectivity for a consistent global experience for the whole aircraft, from safety communications to high-throughput broadband data and video — a superior command and control for airborne ISR. This allows government users to remain in constant contact with commanding officers and allies, no matter where in the world they are.

Highest security standards
Inmarsat’s network infrastructure is built to the highest security standards, Inmarsat employs a dedicated cyber security team, and SwiftBroadband supports high-assurance applications, including NSA Type-1 and NATO secret encryption systems. Our skilled channel partners can provide remote mobile access to classified networks, including STU-IIIb, STE, Taclane, KIV-7 and Brent, subject to verification testing.

Cost-effective interoperability
While the U.S. government and military operate their own satellite constellations to support communication needs, their users continue to depend upon commercial satellite communications. Our highly-flexible, seamless end-to-end networks are designed for worldwide mobility. Thus, they offer abundant capability and technical sophistication to cost-effectively complement the MILSATCOM services in a rapidly changing security environment.

End-to-end solution
SwiftBroadband is built on Inmarsat’s unrivaled satellite and terrestrial infrastructure. We, together with our trusted partners, instill government users with confidence that their communications will work when needed.
System features

SwiftBroadband allows for simultaneous voice and IP data communications over low-profile antennas that are significantly smaller and lighter than any other systems in the market.

Applications

Cockpit
- Safety services - ACARS, ADS, CPDLC
- Voice communications
- Electronic Flight Bag, flight plan, weather and chart updates

Cabin
- WiFi or wired connectivity
- In-seat and mobile phone, VoIP and text messaging
- Email, intranet, internet and instant messaging
- Secure virtual private network (VPN) access
- Video conferencing
- IFE content and news updates
- Operational applications
- Aircraft performance monitoring and fault reporting for major systems
- General operational planning
- Scheduling and route planning
- Crew reporting and general administration

Voice

SwiftBroadband delivers a high-quality, reliable voice service with the full functionality of terrestrial fixed phone services. Each SwiftBroadband channel provides a circuit-switched voice channel to the aircraft. All voice services can be used in parallel with a combination of packet-switched data services.

Data

In standard IP mode, SwiftBroadband makes available 432kbps per channel to the aircraft. It can also provide a pre-determined quality of service through dynamically-assigned streaming classes, which can be combined to achieve higher data throughput or X-Stream service. With the introduction of SwiftBroadband HDR, customers can achieve speeds of up to 650kbps. Combined with the use of performance-enhancing technologies such as data compression, IP and application optimization, SwiftBroadband is your ultimate solution. For backward compatibility, it comes with circuit-switched integrated services for digital networks (ISDNs). If more bandwidth is needed, an operator can add equipment to allow concurrent use of up to four SwiftBroadband channels.
Assured access

Through assured access, users receive a guaranteed data rate within a defined geographic region that can be shared with more than one terminal.

**High gain antenna up to 9.5kg**
- Four channels up to 432kbps each
- Dynamic IP streaming 8, 16, 32, 64 or 128kbps (combined 192kbps max)
- X-stream full-channel streaming up to 250kbps
- Circuit-switched voice and multi-voice VoIP
- Standalone or simultaneous operation with Inmarsat Aero H+
- Compliant with Arinc 781

**Intermediate gain antenna up to 3.5kg**
- Four channels up to 332kbps each
- Dynamic IP streaming 8, 16, 32, 64 or 128kbps (combined to a maximum of 160kbps per channel)
- Circuit-switched voice
- Multi-voice VoIP
- Compliant with Arinc 781

**Low-gain antenna up to 0.7kg**
- Single channel up to 200kbps
- Dynamic IP streaming 8 or 16kbps
- Circuit-switched voice and up to 3 multi-voice VoIP
- Stand-alone system
- Small and compact avionics
- Low-gain blade antenna
Search and rescue air missions send crews to unpredictable and often remote, unfamiliar parts of the world. That’s when extremely mobile and reliable satellite communications count most.

The SwiftBroadband system enables high-speed connectivity for a continuous data connection as well as a video link and telephone communications for search and rescue applications, such as imagery, electronic patient information transmission and situational awareness.

Inmarsat SwiftBroadband enables the mission – and crews to proceed successfully and safely due to the uninterrupted availability of secure voice, data and video services.
About the Inmarsat U.S. Government Business Unit

Inmarsat is a trusted provider of global, mobile satellite communication services that meet the mission-critical needs of the U.S. defense, intelligence, homeland security and civilian organizations. Since 1979, Inmarsat has delivered highly reliable, secure and affordable satellite services that satisfy expeditionary, maritime and aeronautical communication requirements anytime, anywhere.

The Inmarsat U.S. government business model reaches the market through value-added resellers, partners and service providers who enhance its services with specialized solutions government users need. For more information, please visit inmarsat.com/global-xpress-us-government.

How to Buy

Our services are available globally through Inmarsat U.S. government value-added resellers, distribution partners and service providers. To learn more, please visit inmarsat.com/partners.